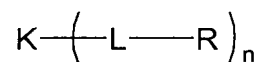


**WHAT IS CLAIMED IS:**

1. Compounds characterized in that they have a core-shell structure comprising a core made up of multifunctional units and a shell of linear conjugated oligomeric chains which are each kept at the terminal linkage point by a flexible nonconjugated chain.

2. Compounds according to Claim 1, characterized in that they have a core-shell structure of the formula (Z),



(Z)

where

K is an n-functional core,

L is a linear conjugated oligomeric chain,

R is a straight-chain or branched C<sub>2</sub>-C<sub>20</sub>-alkyl radical, a monounsaturated or polyunsaturated C<sub>2</sub>-C<sub>20</sub>-alkenyl radical, a C<sub>2</sub>-C<sub>20</sub>-alkoxy radical, a C<sub>2</sub>-C<sub>20</sub>-aralkyl radical or a C<sub>2</sub>-C<sub>20</sub>-oligoether or C<sub>2</sub>-C<sub>20</sub>-polyether radical,

n is an integer greater than or equal to 3.

3. Compounds according to Claim 1, characterized in that the core comprises dendritic structures.

4. Compounds according to Claim 3, characterized in that the core contains 1,3,5-phenylene units as dendritic structures.
- 5 5. Compounds according to Claim 1, characterized in that the core comprises hyperbranched structures.
6. Compounds according to Claim 5, characterized in that the core contains a hyperbranched polymer as hyperbranched structure.
- 10 7. Compounds according to Claim 1, characterized in that the shell contains chains comprising units of substituted or unsubstituted 2,5-thiophenes or substituted or unsubstituted 1,4-phenylenes as linear conjugated oligomeric chains.
- 15 8. Compounds according to Claim 1, characterized in that the shell contains chains comprising units of unsubstituted 2,5-thiophene or 2,5-(3,4-ethylenedioxythiophene) as linear conjugated oligomeric chains.
- 20 9. Compounds according to Claim 1, characterized in that the linear conjugated oligomeric chains are chains having a chain length of from 2 to 7 units.
10. Compounds according to Claim 1, characterized in that the linear conjugated oligomeric chains are each capped at the terminal linkage positions by identical or different, branched or unbranched alkyl or alkoxy groups.
- 25 11. Compounds according to Claim 10, characterized in that the alkyl or alkoxy groups are unbranched C<sub>2</sub>-C<sub>20</sub>-alkyl or C<sub>2</sub>-C<sub>20</sub>-alkoxy groups.

12. Compounds according to Claim 10, characterized in that the alkyl or alkoxy groups are n-hexyl, n-decyl or n-dodecyl groups.
13. Compounds according to Claim 1, characterized in that they form mesophases at temperatures in the range from 50°C to 300°C.
14. Compounds according to Claim 1, characterized in that they are semiconductive.
15. Compounds according to Claim 1, characterized in that they have mobilities of at least  $10^{-4}$  cm<sup>2</sup>/Vs.
16. Process for preparing compounds according to Claim 1, comprising preparing the oligomers or polymers by organometallic reactions.
17. Process according to Claim 16, characterized in that the oligomers or polymers are prepared using the Kumada coupling.
18. Process according to Claim 16, characterized in that the oligomers or polymers are prepared using the Suzuki coupling.
19. A process for preparing electronic components comprising incorporating compounds of Claim 1 as semiconductors.
20. A process for preparing field effect transistors, light-emitting components such as organic luminescence diodes, or photovoltaic cells, lasers and sensors comprising incorporating the compounds according to Claim 1 as semiconductors.
21. The process of Claim 19 comprising providing the compound of Claim 1, in the form of layers which are applied from solution.

22. Electronic components comprising compounds according to Claim 1 as semiconductors.